

TM 9-1450-350-14/4

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL,
AND FIELD MAINTENANCE MANUAL

TRAILER-MOUNTED GUIDED MISSILE BATTERY SERVICING SHOP M479

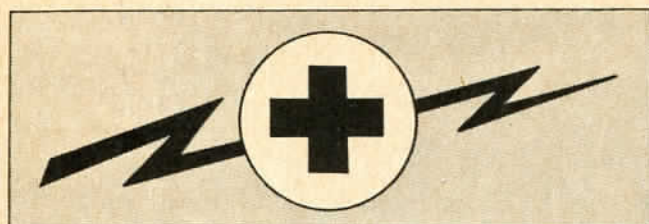
(FIELD ARTILLERY GUIDED
MISSILE SYSTEM REDSTONE)



HEADQUARTERS, DEPARTMENT OF THE ARMY

SEPTEMBER 1960

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RA PD 404264

**HIGH VOLTAGES
ARE USED IN THE OPERATION
OF THIS EQUIPMENT**

DEATH on CONTACT

*... May result if personnel fail to
observe safety precautions*



DO NOT WORK ALONE

Do not work on electronic or electrical equipment unless someone else is nearby who not only knows how to operate the equipment you are working on, but also knows how to administer first aid.



WARN YOUR ASSISTANTS

When working with someone unfamiliar with the equipment, warn him of the hazards existing in the equipment.



WORK WITHOUT POWER IF YOU CAN

Remove power from the equipment whenever troubleshooting and maintenance procedures permit.



DISCHARGE CAPACITORS

Be sure to discharge high-voltage capacitors after removing power from the equipment.



AVOID TOUCHING HIGH-VOLTAGE LINES

When installing or operating electrical or electronic equipment, be sure to avoid touching high-voltage connections.



USE ONLY ONE HAND

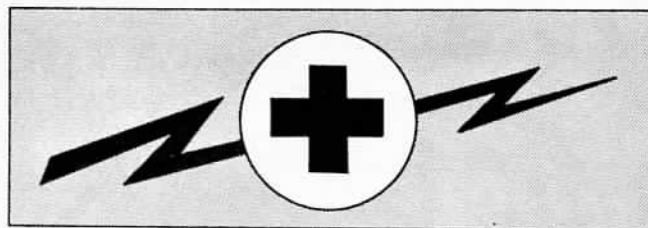
When possible, use only one hand while working on electrical or electronic equipment.

TRAILER-MOUNTED BATTERY SERVICING SHOP M479
 (FIELD ARTILLERY GUIDED MISSILE SYSTEM REDSTONE)

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FIRST AID FOR ELECTRIC SHOCK

RA PD 404264

RESCUE

**FREE VICTIM FROM CONTACT WITH LIVE CONDUCTOR QUICKLY.
AVOID CONTACT WITH EITHER LIVE CONDUCTOR OR VICTIM'S BODY.**

Shut off high voltage at once and ground circuit. If high voltage cannot be turned off quickly, ground circuit.

An ax with a dry wooden handle may be used to cut high voltage line. Use extreme caution to avoid resulting electric flash.

If circuit cannot be broken or grounded, use a dry board, dry clothing, or other nonconductor to free the victim.

SYMPTOMS

NEVER ACCEPT ORDINARY AND GENERAL TESTS FOR DEATH.

Symptoms of electric shock may include unconsciousness, failure to breathe, absence of pulse, pallor, and stiffness, as well as severe burns. **WHENEVER VICTIM IS NOT BREATHING PROPERLY, GIVE ARTIFICIAL RESPIRATION**

TREATMENT

START ARTIFICIAL RESPIRATION IMMEDIATELY.

Perform artificial respiration at scene of accident, unless victim's or operator's life is endangered. **IN THIS CASE ONLY**, remove victim to safe location nearby. If new location is more than a few feet away, give artificial respiration while victim is being moved.

After starting artificial respiration, continue without loss of rhythm for at least **FOUR HOURS**, or until victim is breathing without help. If you have to change operators while giving artificial respiration, do so without losing rhythm of respiration.

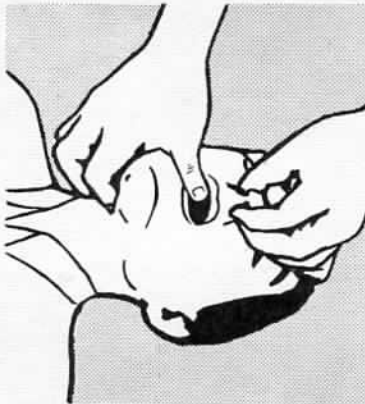
AFTER VICTIM REVIVES

Be prepared to resume artificial respiration, as he may stop breathing again.

When victim is **COMPLETELY CONSCIOUS**, give him a stimulant (**NOT AN ALCOHOLIC DRINK**) such as a teaspoonful of aromatic spirits of ammonia in a small glass of water, hot coffee, or hot tea.

Keep victim warm and lying down until he has been conscious for at least fifteen minutes.

ARTIFICIAL RESPIRATION



POSITION VICTIM

Place victim in face-upward position and kneel close to his ear.

CLEAR THROAT

Turn head to one side and quickly wipe out any fluid, mucus, or foreign body from mouth and throat with fingers.

OPEN AIR PASSAGE

Tilt head back and extend neck to open air passage.

LIFT JAW FORWARD

Place thumb in victim's mouth and grasp jaw firmly. Lift jaw forward to pull tongue out of air passage. Do not attempt to hold or depress tongue.



PINCH NOSTRILS CLOSED

With other hand pinch nostrils closed to prevent air leak.

FORM TIGHT SEAL WITH LIPS

Rescuer's wide-open mouth completely surrounds and seals open mouth of victim. This is not a kissing or puckered position --mouth of rescuer must be wide-open.

BLOW

Exhale firmly into victim's mouth until chest is seen to lift. This can be seen by rescuer without difficulty.



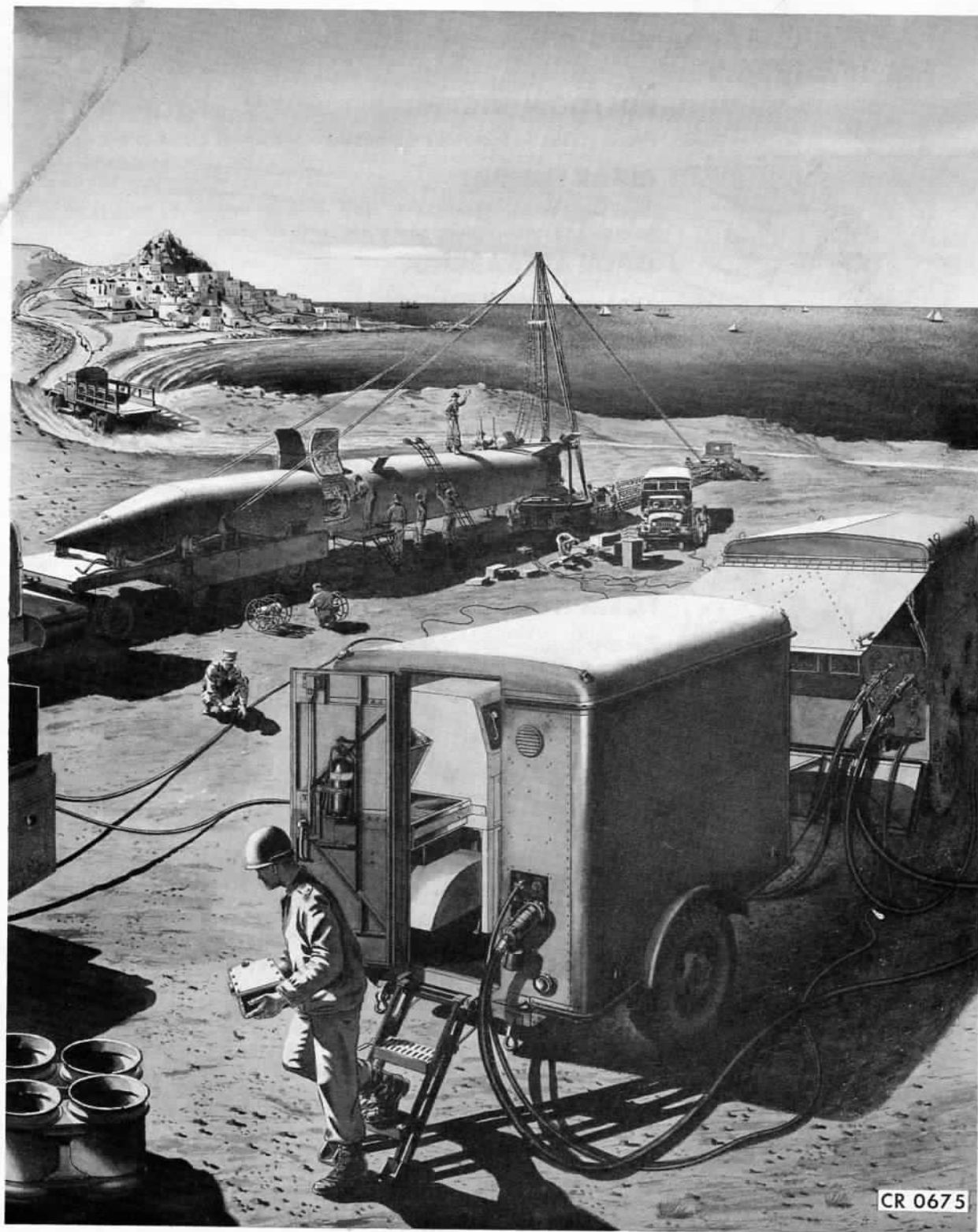
REMOVE MOUTH AND INHALE

During this time, rescuer can hear and feel escape for air from lungs. Readjust position if air does not flow freely in and out of victim's lungs.

Continue at a rate of 12 to 20 times per minute.

Breathing should be normal in rate with only moderate increase in volume, so that rescue breathing can be continued for long periods without fatigue. Do not breathe too forcibly or too large a volume if victim is an infant or small child.

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FIGURE 1-1. BATTERY SERVICING TRAILER AT FIRING SITE

Chapter 1

INTRODUCTION

1-1. SCOPE

This manual is about the Guided Missile Battery Servicing Shop M479, hereafter referred to as the battery servicing trailer. The battery servicing trailer is used for activating, testing, and booster-charging batteries for the REDSTONE Missile M8. The manual contains the information needed to operate and maintain the battery servicing trailer equipment.

Chapter 1 contains general information, such as a list of Department of the Army Technical manuals (REDSTONE); a functional description of the battery servicing trailer; a definition of maintenance responsibility; and explanation of applicable forms, records, and reports; instructions for servicing new and rebuilt vehicles; and safety and first-aid instructions.

The introductory information is followed by chapter 2, which contains a physical and functional description of the battery servicing trailer equipment. This descriptive information is provided to help the user understand how the equipment works.

Once the equipment is understood, it may be then operated in accordance with the step-by-step procedures in chapter 3. This chapter not only covers the activation, testing, and charging of the missile batteries, but also covers the operation of accessory equipment, such as blackout lights and heaters. The procedures in chapter 3 are the only authorized method

of operating the equipment. The operator must not deviate from them.

So that the equipment may be kept in perfect operating condition, it should be inspected and serviced weekly, monthly, quarterly, and semiannually. The illustrated preventive maintenance section of chapter 4, should be used as a guide or a check sheet for this work.

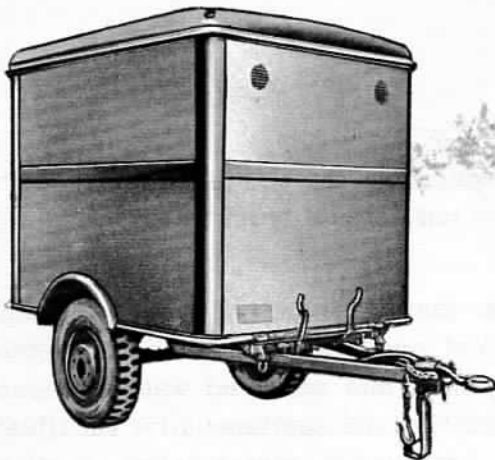
If troubles develop, the operator can isolate the defective part immediately by using the troubleshooting table in Section II of chapter 4. Although the table does not cover every conceivable trouble, it does cover those which are most likely to occur.

Once a defective part is found, the mechanic should turn to chapter 5, which contains instructions for removal, disassembly, inspection, replacement, assembly, and installation of major components of the battery servicing trailer. Maintenance information for the trailer chassis is in TM9-874A, which covers the Cargo Trailer, 3/4-ton, 2-wheel, M101.

Chapter 6 contains instructions for shipping and storing the battery service trailer.

The appendixes contain supporting information, such as reference publications, and basic issue items.

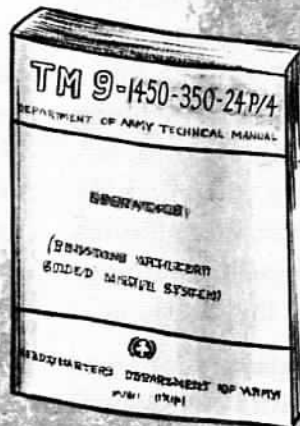
1-1. SCOPE (Cont'd)



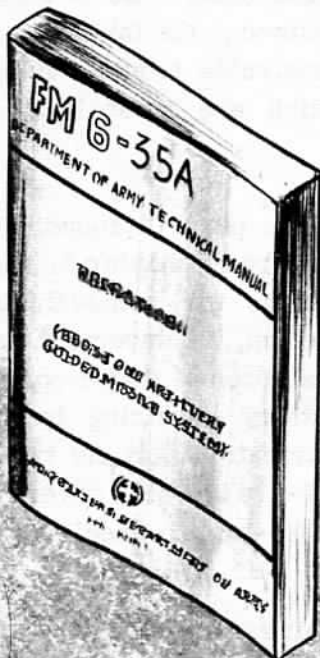
FOR FURTHER INFORMATION REGARDING THE BATTERY SERVICING TRAILER, REFER TO THESE MANUALS FOR THE INDICATED INFORMATION.



TM 9-4935-350-14/13
Procedures for calibration of battery servicing trailer equipment.



TM 9-1450-350-24P/4
List of repair parts and special tools for battery servicing trailer.



FM 6-35A
Procedures for installing batteries in missile at the firing site.

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FIGURE 1-2. CROSS-REFERENCE ILLUSTRATION OF CLOSELY RELATED REDSTONE TM'S

1-1. SCOPE (Cont'd)**NOTE**

Missiles in the field are presently being modified to provide a built-in 60-volt power supply in place of the 60-volt battery. However, description, operation, and maintenance information covering equipment designed for the purpose of activating and testing the 60-volt battery will be retained in this manual until field modifications are completed.

1-2. DEPARTMENT OF THE ARMY TECHNICAL MANUALS (REDSTONE)

This manual is one of a series of Department of the Army technical manuals on ordnance materiel in the Field Artillery Guided Missile System REDSTONE. The following is a complete listing of manuals in this series. Closely related technical manuals are shown in figure 1-2.

TM 9-1400-350-10

Operators Manual: Introduction and Description; Field Artillery Guided Missile System REDSTONE

TM 9-1400-350-12

Operators and Organizational Maintenance Manual: Maintenance-Operational Readiness Procedures - Artillery Operations (Field Artillery Guided Missile System REDSTONE)

TM 9-1400-350-34/1

Field Maintenance Manual: Ordnance Inspection Procedures (Field Artillery Guided Missile System REDSTONE)

TM 9-1400-350-34/2

Field Maintenance Manual: Maintenance-Operational Readiness Procedures - Ordnance Operations (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-14/1

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Shipment, Handling, and Storage (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-24P/1

Organizational and Field Maintenance Repair Parts and Special Tools List for Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-14/2

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Ballistic Shell (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-14/3

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Propulsion System (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-14/4

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Description (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-14/5

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System and Electrical System: Maintenance (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-14/6

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System and Electrical System: Component Replacement and Cable Repair (Field Artillery Guided Missile System REDSTONE)

**1-2. DEPARTMENT OF THE ARMY
TECHNICAL MANUALS (REDSTONE)
(Cont'd)**

TM 9-1410-350-14/7

Operator, Organizational, and Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System and Electrical System: Schematics and Wiring Diagrams (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/1

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Stabilized Platform ST-80 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/1

Field Maintenance Repair Parts and Special Tools List for Stabilized Platform ST-80: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/2

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Range Guidance Computer (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/2

Field Maintenance Repair Parts and Special Tools List for Range Guidance Computer: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/3

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Lateral Guidance Computer (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/3

Field Maintenance Repair Parts and Special Tools List for Lateral Guidance Computer: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/4

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Control Computer (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/4

Field Maintenance Repair Parts and Special Tools List for Control Computer: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/5

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Control Relay Box (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/5

Field Maintenance Repair Parts and Special Tools List for Control Relay Box: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/6

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Program Device (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/6

Field Maintenance Repair Parts and Special Tools List for Program Device: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

**1-2. DEPARTMENT OF THE ARMY
TECHNICAL MANUALS (REDSTONE)
(Cont'd)**

TM 9-1410-350-34/7

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Inverter (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/7

Field Maintenance Repair Parts and Special Tools List for Inverter: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34/8

Field Maintenance Manual: Ballistic Guided Missile M8: Guidance and Control System: Actuator (Field Artillery Guided Missile System REDSTONE)

TM 9-1410-350-34P/8

Field Maintenance Repair Parts and Special Tools List for Actuator: Ballistic Guided Missile M8 (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-14/1

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile Programmer - Test Station AN/MSM-38: Description and Operation (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-14/2

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile Programmer - Test Station AN/MSM-38: Maintenance (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-24P/2

Organizational and Field Maintenance Repair Parts and Special Tools List for Truck-Mounted Guided Missile Programmer - Test Station AN/MSM-38 (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-14/3

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile Programming Data Computer AN/MJQ-1: Description and Operation (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-14/4

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile Programming Data Computer AN/MJQ-1: Maintenance (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-14/5

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile Programming Data Computer AN/MJQ-1: Adjustments and Checks (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-34P/5

Field Maintenance Repair Parts and Special Tools List for Truck-Mounted Guided Missile Programming Data Computer AN/MJQ-1 (Field Artillery Guided Missile System REDSTONE)

TM 9-1430-350-14/6

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile Programming Data Computer AN/MJQ-1: Wire Lists (Field Artillery Guided Missile System REDSTONE)

**1-2. DEPARTMENT OF THE ARMY
TECHNICAL MANUALS (REDSTONE)
(Cont'd)**

TM 9-1440-350-14

Operator, Organizational, and Field Maintenance Manual: Guided Missile Platform Launcher M74 and Truck-Mounted Guided Missile Erector-Servicer M478 (Field Artillery Guided Missile System REDSTONE)

TM 9-1440-350-24P

Organizational and Field Maintenance Repair Parts and Special Tools List for Guided Missile Platform Launcher M74 and Truck-Mounted Guided Missile Erector-Servicer M478 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-14/1

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Hydrogen Peroxide Servicer M506 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-24P/1

Organizational and Field Maintenance Repair Parts and Special Tools List for Truck-Mounted Hydrogen Peroxide Servicer M506 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-14/2

Operator, Organizational, and Field Maintenance Manual: Repair Parts Vehicles: Semitrailer-Mounted Guided Missile System Supply Office M484, Truck-Mounted Preservation and Storage Shop M485, Guided Missile Bulk Material Repair Parts Truck M486, Guided Missile Repair Parts Trailer M487, and Guided Missile Repair Parts Truck M488 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-24P/2

Organizational and Field Maintenance Repair Parts and Special Tools List for Repair Parts Vehicles: Semitrailer-Mounted Guided Missile System Supply Office M484, Truck-Mounted Preservation and Storage Shop M485, Guided Missile Bulk Material Repair Parts Truck M486, Guided Missile Repair Parts Trailer M487, and Guided Missile Repair Parts Truck M488 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-14/3

Operator, Organizational, and Field Maintenance Manual: Trailer-Mounted Guided Missile System Power Distribution Station AN/MSQ-32 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-24P/3

Organizational and Field Maintenance Repair Parts and Special Tools List for Trailer-Mounted Guided Missile System Power Distribution Station AN/MSQ-32 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-14/4

Operator, Organizational, and Field Maintenance Manual: Trailer-Mounted Guided Missile Battery Servicing Shop M479 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-24P/4

Organizational and Field Maintenance Repair Parts and Special Tools List for Trailer-Mounted Guided Missile Battery Servicing Shop M479 (Field Artillery Guided Missile System REDSTONE)

**1-2. DEPARTMENT OF THE ARMY
TECHNICAL MANUALS (REDSTONE)
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TM 9-1450-350-14/5

Operator, Organizational, and Field Maintenance Manual: Accessories Transportation Trucks (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-24P/5

Organizational and Field Maintenance Repair Parts and Special Tools List for Accessories Transportation Trucks (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-14/6

Operator, Organizational, and Field Maintenance Manual: Trailer-Mounted Guided Missile Air Servicer M483 (Field Artillery Guided Missile System REDSTONE)

TM 9-1450-350-24P/6

Organizational and Field Maintenance Repair Parts and Special Tools List for Trailer-Mounted Guided Missile Air Servicer M483 (Field Artillery Guided Missile System REDSTONE)

TM 9-2330-350-14

Operator, Organizational, and Field Maintenance Manual: Alcohol Tank Semitrailer M388 (Field Artillery Guided Missile System REDSTONE)

TM 9-2330-350-24P

Organizational and Field Maintenance Repair Parts and Special Tools List for Alcohol Tank Semitrailer M388 (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/1

Operator, Organizational, and Field Maintenance Manual: Semitrailer-Mounted Guided Missile Test Station AN/MSM-33 Control Components and Semitrailer-Mounted Guided Missile Test Station AN/MSM-41 Guidance Components (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/1

Field Maintenance Repair Parts and Special Tools List for Semitrailer-Mounted Guided Missile Test Station AN/MSM-33 Control Components and Semitrailer-Mounted Guided Missile Test Station AN/MSM-41 Guidance Components (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/2

Operator, Organizational, and Field Maintenance Manual: Actuator Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/2

Field Maintenance Repair Parts and Special Tools List for Actuator Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/3

Operator, Organizational, and Field Maintenance Manual: Control Computer Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/3

Field Maintenance Repair Parts and Special Tools List for Control Computer Test Fixture (Field Artillery Guided Missile System REDSTONE)

**1-2. DEPARTMENT OF THE ARMY
TECHNICAL MANUALS (REDSTONE)
(Cont'd)**

TM 9-4935-350-14/4

Operator, Organizational, and Field Maintenance Manual: Control Relay Box Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/4

Field Maintenance Repair Parts and Special Tools List for Control Relay Box Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/5

Operator, Organizational, and Field Maintenance Manual: Program Device Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/5

Field Maintenance Repair Parts and Special Tools List for Program Device Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/6

Operator, Organizational, and Field Maintenance Manual: Inverter Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/6

Field Maintenance Repair Parts and Special Tools List for Inverter Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/7

Operator, Organizational, and Field Maintenance Manual: Guidance Computer Test

Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/7

Field Maintenance Repair Parts and Special Tools List for Guidance Computer Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/8

Operator, Organizational, and Field Maintenance Manual: Stabilized Platform ST-80 Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/8

Field Maintenance Repair Parts and Special Tools List for Stabilized Platform ST-80 Test Fixture (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/9

Operator, Organizational, and Field Maintenance Manual: Semitrailer-Mounted Stabilized Platform Test Station AN/MJM-3: Description and Operation (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/10

Operator, Organizational, and Field Maintenance Manual: Semitrailer-Mounted Stabilized Platform Test Station AN/MJM-3: Maintenance (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/10

Field Maintenance Repair Parts and Special Tools List for Semitrailer-Mounted Stabilized Platform Test Station AN/MJM-3 (Field Artillery Guided Missile System REDSTONE)

1-2. DEPARTMENT OF THE ARMY TECHNICAL MANUALS (REDSTONE) (Cont'd)

TM 9-4935-350-14/11

Operator, Organizational, and Field Maintenance Manual: Truck-Mounted Guided Missile System Pneumatic Shop M477 (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/11

Field Maintenance Repair Parts and Special Tools List for Truck-Mounted Guided Missile System Pneumatic Shop M477 (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/12

Operator, Organizational, and Field Maintenance Manual: Missile System Test Equipment Calibrator Set: Description, Operation, and Maintenance (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-34P/12

Field Maintenance Repair Parts and Special Tools List for Missile System Test Equipment Calibrator Set (Field Artillery Guided Missile System REDSTONE)

TM 9-4935-350-14/13

Operator, Organizational, and Field Maintenance Manual: Missile System Test Equipment Calibrator Set: Calibration Procedures (Field Artillery Guided Missile System REDSTONE)

TM 9-6930-350-14/1

Operator, Organizational, and Field Maintenance Manual: Guided Missile System Training Set AN/MSQ-T3: Description and Operation (Field Artillery Guided Missile System REDSTONE)

TM 9-6930-350-14/2

Operator, Organizational, and Field Maintenance Manual: Guided Missile System Training Set AN/MSQ-T3: Maintenance (Field Artillery Guided Missile System REDSTONE)

TM 9-6930-350-34P/2

Field Maintenance Repair Parts and Special Tools List for Guided Missile System Training Set AN/MSQ-T3 (Field Artillery Guided Missile System REDSTONE)

TM 9-6930-350-14/3

Operator, Organizational, and Field Maintenance Manual: Guided Missile System Training Set AN/MSQ-T3: Schematics (Field Artillery Guided Missile System REDSTONE)

For Special Weapons Publications, See TM 39-0-1, Numerical Index to Joint Atomic Weapons Publications.

1-3. FUNCTION OF THE BATTERY SERVICING SHOP

The battery servicing trailer is one of the first vehicles to arrive at the firing site. Its primary function is to transport, activate, and test the three missile batteries (figure 1-3). For this purpose, the trailer carries a battery-servicing center and miscellaneous battery-servicing accessories. In addition, the battery servicing trailer contains a battery charger for booster-charging the missile inverter bus battery and general bus battery. Truck batteries may also be recharged by connecting a charging cable to the trailer external charging receptacle.

The trailer provides working space for two men and contains lighting facilities as well as compartment heaters and a ventilating fan.

1-3. FUNCTION OF THE BATTERY SERVICING SHOP

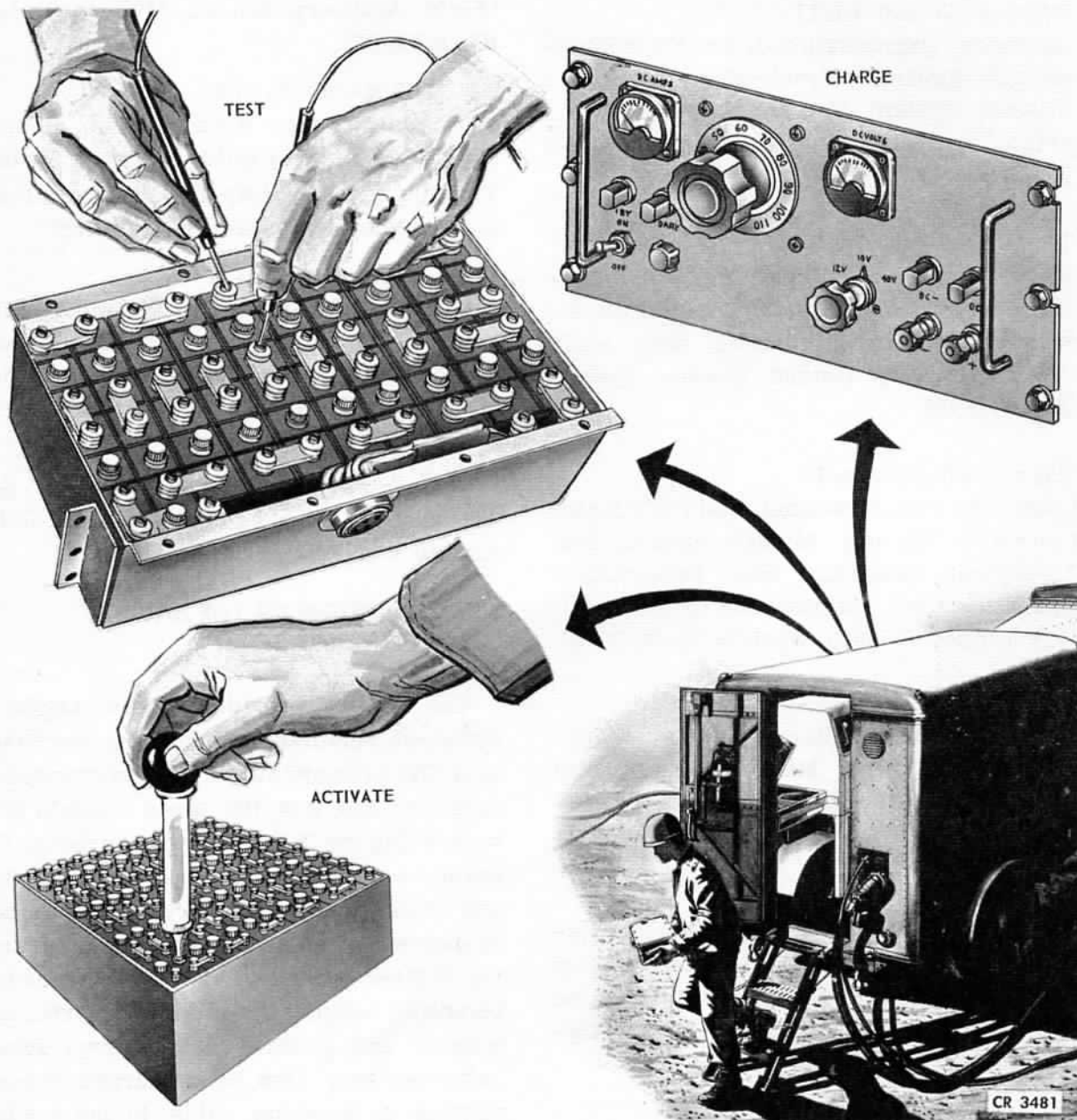


FIGURE 1-3. FUNCTION OF BATTERY SERVICING TRAILER

1-4. MAINTENANCE ALLOCATION

Limitations imposed on performance of maintenance are those of repair parts, equipment, and tools authorized; time element; and skills of the responsible personnel.

In general, prescribed repair responsibilities of the firing battery and the ordnance company for the battery servicing trailer are reflected in the Organizational and Field Maintenance Repair Parts and Special Tools List, TM9-1450-350-24P/4.

In all cases where the nature of repair, modification, or adjustment is beyond the scope or facilities of the firing battery, the ordnance company (direct support unit) should be contacted for assistance or instructions. If the direct support unit does not have the authorized responsibility for making the required repairs, the faulty component should be returned through supply channels to be repaired or rebuilt.

1-5. FORMS, RECORDS, AND REPORTS

a. **General.** Responsibility for the proper execution of forms, records, and reports rests upon the commanding officers of all units operating this equipment. However, the value of accurate records must be fully appreciated by all persons responsible for their compilation, maintenance, and use. Records, reports, and authorized forms are normally utilized to indicate the type, quantity, and condition of materiel to be inspected, to be repaired or to be used in repair. Properly executed forms convey authorization and serve as records for repair or replacement of materiel in the hands of troops and for delivery of materiel requiring further repair to ordnance shops in arsenals, depots,

etc. The forms, records, and reports establish the work required, the progress of work, and the status of materiel upon completion of its repair.

b. **Authorized Forms.** The forms generally applicable to units operating this materiel are listed in appendix I. For a listing of all forms, refer to current DA Pam 310-2. For instructions in the use of these forms, refer to FM 9-10.

c. **Field Reports of Accidents.** The reports necessary to comply with the requirements of the Army safety program are prescribed in AR 385-40. These reports are required whenever accidents involving injury to personnel or damage to materiel occur.

d. **Report of Unsatisfactory Equipment and Materials.** Any deficiencies detected in the equipment covered herein which occur under the circumstances indicated in AR 700-38 should be reported immediately in accordance with the applicable instructions in cited regulations. Reports of damaged or improper shipment should be reported on DD Form 6 in accordance with instructions in AR 700-58.

1-6. SERVICE UPON RECEIPT OF MATERIEL

New vehicles, when received, require preliminary inspection and servicing before they can safely be placed in operation. It is the responsibility of ordnance companies and firing batteries to perform preliminary inspection and servicing upon receipt of new or rebuilt vehicles. Firing battery and ordnance company maintenance personnel are qualified to perform this work.

1-6. SERVICE UPON RECEIPT OF MATERIEL (Cont'd)

New or rebuilt battery servicing trailers may be towed to the using organization; they may be shipped in drivable condition; or they may be shipped crated. In any case, they require substantially the same treatment upon receipt, and prior to being placed in use.

(1) Remove metal strapping, plywood, tape, wrapping paper, and dehydrant bags.

(2) Read Preparation for Storage or Shipment tag and follow all precautions checked thereon. This tag should be attached to one of the electrical panels.

(3) Inspect and service the battery servicing trailer equipment as outlined in chapter 4, paragraph 4-2. Inspect and service the battery servicing trailer chassis according to TM9-874A.

(4) Note whether any exterior surfaces are coated with rust-preventive compound; remove compound with dry-cleaning solvent.

1-7. DESTRUCTION OF MATERIEL TO PREVENT ENEMY USE

If destruction to prevent enemy use is necessary, the materiel must be so badly damaged that it cannot be restored to a usable condition in the combat zone either by repair or by cannibalization. Adequate destruction requires that all parts should be damaged or destroyed beyond repair. However, when lack of time and personnel prevents destruction of all parts, priority is given to the destruction of those parts most difficult to repair. Equally important, the same essential parts must be destroyed on all like materiel so that the enemy cannot construct one complete operating unit from several damaged ones.

Additional information is given in FM5-25, Explosives and Demolitions and, FM9-5 Ordnance Ammunition Service. Due consideration should be given to the observance of appropriate safety precautions.

1-8. SAFETY AND FIRST AID

Except as noted below, operation of the battery servicing trailer poses no special problems in terms of safety procedures beyond normal precautionary measures related to the operation of electrical and automotive equipment:

Move all circuit breakers to OFF position before connecting power cable to trailer.

Always wear safety clothing (rubber gloves, protective apron, and goggles) when activating batteries (figure 1-4).



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FIGURE 1-4. SAFETY CLOTHING

1-8. SAFETY AND FIRST AID (Cont'd)

- Do not smoke or have an open flame present when activating batteries.

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- If electrolyte (potassium hydroxide) is spilled on the skin, wash off immediately with boric acid solution. Remove boric acid solution with water.

- Potassium hydroxide is a poison. If taken internally, give either vinegar, lemon juice, orange juice, and/or milk, mineral oil, olive oil or similar oil. Call a physician if possible.

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